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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,187	11/26/2003	James Fraivillig	07010.002002	9016

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EXAMINER


CHARLES, DEBRA F

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/723,187	Applicant(s) FRAIVILLIG ET AL.	
	Examiner Debra F. Charles	Art Unit 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on November 26, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2, 8-17, 19 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernholz(U.S.PAT. 5819238 A) and Jennings et al.(U.S.PAT. 6606615 B1).

Re claims 1, 20, and 23: Fernholz disclose a system for causing investment returns for individual investors in a fund to correspond to with respect to investment options selected by said individual investors in said fund(Abstract, Fig. 6B,item 668, 7A, 7B, 8, 9A), the system comprising a computer having a program(col. 7, lines 5-67) including instructions for:

selecting a nominal yield of said fund(Col. 4, line 54-col. 5, line 35, expected value is reflected in portfolio security weightings);

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allocating a portion of said nominal yield to each of said investment options ratably with respect to the portion of said value of each said yield calculator bears to a total of all values of all of said yield calculators(col. 15, line 45-col. 16, line 65, weighing strategies effectively calculate total yield),

calculating, on a periodic basis, a change in total value of assets owned by said fund and ratably allocating said change to investors in said fund(Abstract, Fig. 6B,item 668, 7A, 7B, 8, 9A,security weightings effectively determine the total return of the portfolio, col. 21, line 55-col. 22, line 35, col. 23, lines 1-35,); and

periodically redetermining said values(col.15, line 50-col. 16, line 65, col. 29, lines 1-45).

Fernholz disclose(s) the claimed invention except designing a plurality of said investment options each having a yield calculator, said calculator having a value related to occurrence, to each said option, occurrence of selected events and measuring occurrence of said predefined events during a selected measuring period.

However, in col. 2, lines 30-62, col. 5, lines 5-67, col. 6, line 60-col. 7, line 55, col. 11, line 15-col. 12, line 67, col. 13, line 1-15 thereof,

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Jennings et al. disclose(s) predicting sports and related events that are predefined and calculating the probability that they will occur using econometric calculation techniques (yield calculators). It would be obvious to one of ordinary skill in the art to modify the invention of Fernholz based on the teachings of Jennings et al. The motivation to combine these references is rebalancing portfolio weighings does effectively shift the yield and portfolios are typically impacted by outside events that have or are expected to occur.

Re claim 2: Fernholz disclose determining a per-share price for each of said investment options based on a relative ownership of each of said options(col. 4, line 1-col. 4, line 20,col. 11, line 65-col. 12, line 25, allocating returns of a portfolio based on the amount owned by an individual is inherently a subset of per-share pricing techniques that allocate re-calculated returns for each priced share and then re-distributes the return per rata to each shareholder).

Re claims 8-13, 21-22, and 24-25: Fernholz disclose(s) the claimed invention except said investment options comprise sports teams and said predefined events comprise game wins by said sports teams.

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And said sports teams comprise one selected from the group of professional baseball, professional basketball, professional hockey and professional football. And post-season game wins each increment said yield calculator to a greater extent than do each regular season game win. And said investment options comprise political parties and said predefined events comprise public officials elected to office who are members of one of said parties. And an increment to said yield calculator allocated with respect to election of members of one of said political parties to a particular public office is inversely related to numbers of said particular public office.

And said particular public offices comprise United States Representatives, United States Senators, the President of the United States and Governors of each of the United States. However, in col. 2, lines 30-62, col. 5, lines 5-67, col. 6, line 60-col. 7, line 55, col. 11, line 15-col. 12, line 67, col. 13, line 1-15 thereof, Jennings et al. disclose(s) predicting sports and current events that are predefined and calculating the probability that they will occur using econometric calculation techniques (yield calculators). It would be obvious to one of ordinary skill in the art to modify the invention of Fernholz based on the teachings of Jennings et al. The motivation to combine these

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references is rebalancing portfolio weighings does effectively shift the yield and portfolios are typically impacted by outside events that have or are expected to occur.

Re claim 14: Fernholz disclose said nominal yield comprises a fixed value based on an expected return of said assets owned by said fund, and said method further comprises periodically calculating a difference between an actual return on said assets and said nominal yield, and allocating said differential to said investors(Col. 4, line 54-col. 5, line 35, expected value is reflected in portfolio security weighings, Fig. 6, item 674, relative portfolio return, 6A, 6B,7B).

Re claim 15: Fernholz disclose said return on assets and said difference comprise daily calculation thereof(Col. 4, line 54-col. 5, line 35, expected value is reflected in portfolio security weighings, Fig. 6, item 674, relative portfolio return, 6A, 6B,7B).

Re claim 16: Fernholz disclose said difference comprises allocation to said investors on a daily basis(Col. 4, line 54-col. 5, line 35, expected

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value is reflected in portfolio security weighings, Fig. 6, item 674, relative portfolio return, 6A, 6B,7B).

Re claim 17: Fernholz disclose said assets comprise stocks underlying a selected stock index(col. 4, line 40-col. 5, line 35, col. 6, lines 45-67).

Re claim 19: Fernholz disclose said method comprises embodiment in a computer program resident on an Internet server(col. 4, lines 1-20).

3. Claims 3, 4,26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernholz and Jennings et al. as applied to claim 2 above, and further in view of Lange(U.S.PUB. 2002/0147670 A1).

Fernholz and Jennings et al. disclose the claimed invention except said relative ownership is linearly related to said per share price; relative ownership is non-linearly related to said per share price.

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However, in paras. 0371,0374,0959, 0996 thereof, Lange discloses linear and non-linear relationships between various parameters. It would be obvious to one of ordinary skill in the art to modify the invention of Fernholz and Jennings et al. based on the teachings of Lange. The motivation to combine these references is that linear and non-linear programming techniques effectively and efficiently relate the ownership of shares to price.

Claims 5 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernholz and Jennings et al. as applied to claims 2 and 23 above, and further in view Chodak et al. (U.S.PAT. 4363489A).

Fernholz and Jennings et al. disclose the claimed invention except dampening changes in said per-share price for each of said investment options on initial opening of said fund to investors.

However, in claim 20 thereof, Chodak et al. disclose(s) initial share pricing and subsequent share pricing. It would be obvious to one of ordinary skill in the art to modify the invention of Fernholz and Jennings et al. based on the teachings of Chodak et al. The

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motivation to combine these references is it provides an interplay of the factors that affect the investment value of the stock.

Claims 6 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernholz, Jennings et al. and Chodak et al. as applied to claim 5 above, and further in view of Keiser et al. (U.S.PAT. 6505174B1).

Fernholz, Jennings et al. and Chodak et al. disclose the claimed invention except dampening comprises setting up an initial number of shares of each of said investment options deemed to be owned by said fund, said deemed owned shares being first sold to ones of said investors electing to purchase shares of said options, wherein newly issued shares of each of said options occurs upon exhaustion of said deemed owned shares, said deemed owned shares forming part of a calculation of said relative ownership. However, in col. 15, line 60-col. 16, line 20, claims 16 and 17 thereof, Keiser et al. disclose(s) initial shares and initial share price and subsequent shares and subsequent share price. Share equaling a relative ownership value in the entity. It

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would be obvious to one of ordinary skill in the art to modify the invention of Fernholz, Jennings et al. and Chodak et al. based on the teachings of Keiser et al. The motivation to combine these references is to effectively and efficiently calculate the initial number of shares issued by an entity and then issue more shares at a different price so the entity can purchase more shares.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fernholz and Jennings et al. as applied to claim 1 above, and further in view of Keiser et al.

Fernholz and Jennings et al. disclose(s) the claimed invention except measuring period comprises trailing 52 weeks from a date of valuation of said fund. However, in col. 17, lines 30-50 thereof, Keiser et al. disclose(s) calculations based on trailing averages. It would be obvious to one of ordinary skill in the art to modify the invention of Fernholz and Jennings et al. based on the teachings of Keiser et al. The motivation to combine these references is to effectively and efficiently compute a valuation during a known measuring period.

Allowable Subject Matter

4. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Richard J. Bagby, "A Convergence of Limits", *Mathematics Magazine*, Oct. 1998, 71, 4: Research Library, pages 270-277. This article illustrates the classic arctangent equation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra F. Charles whose telephone number is (703) 305-4718. The examiner can normally be reached on 9-5 Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be

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reached on (703) 308-0505. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Debra F. Charles
Examiner
Art Unit 3628

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